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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,405	03/31/2004	Guy Riddle	079171.0104	7944

5073 7590 01/30/2009

BAKER BOTTS L.L.P.
2001 ROSS AVENUE
SUITE 600
DALLAS, TX 75201-2980

EXAMINER	
AHMED, SALMAN	
ART UNIT	PAPER NUMBER
2419	

NOTIFICATION DATE	DELIVERY MODE
01/30/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptomail1@bakerbotts.com
glenda.orrantia@bakerbotts.com

Office Action Summary	Application No.	Applicant(s)	
	10/815,405	RIDDLE, GUY	
	Examiner	Art Unit	
	SALMAN AHMED	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/19/2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5,7,9-25,28-36,38 and 41-58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 4, 5, 7, 9-25, 28-36, 38 and 41-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *3/31/2004, 11/8/2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1, 2, 4, 5, 7, 9, 10-25, 28-36, 38 and 41-58 are pending.

Claims 1, 2, 4, 5, 7, 9-25, 28-36, 38 and 41-58 are rejected.

Claims 3, 6, 8, 26, 27, 37, 39 and 40 are cancelled.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 2, 4, 5, 7, 9-25, 28-33 and 41-47 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are:

3. In regards to claim 1, it is unclear as to the relationship between "destination host" and "network device". Specifically, "destination host" seems to be not further used or defined in terms of utility and since to be missing essential relationship with rest of the network devices. As such, claim 1 is incomplete for omitting essential structural cooperative relationships of elements ("destination host" and "network device"), such omission amounting to a gap between the necessary structural connections.

4. Claims 9-23 have similar issues.

5. Claims 24, 25 and 28-33 have similar issues.

6. Claims 41-47 have similar issues.

7. Claims 1, 2, 4, 5, 7, 9-25, 28-33 and 41-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 1 states "the configuration message is transmitted from a remote device on the first network and addressed to a destination host on the second network" without stating the relationship between "destination host" in relation to "network device" and functionality of the "destination host" in relation to the "network device". As such, claim 1 is being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claims 9-23 have similar issues.

10. Claims 24, 25 and 28-33 have similar issues.

11. Claims 41-47 have similar issues.

Examiners Note: The prior art rejections of claims 1, 2, 4, 5, 7, 9-25, 28-33 and 41-47 have been based on claim interpretation as best understood by the Examiner.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 48, 49, 54, 55, 57 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao (US20040264395) in view of Aboba et al. (US PAT PUB 2005/0286722, hereinafter Aboba).

Regarding claim 48, Rao teaches method facilitating remote, automated deployment of a network device on a network (see paragraphs 9-11), comprising establishing, in an unconfigured mode (see paragraph 32 unconfigured wireless device), a connection with a remote device for configuration information (see paragraph 33 configured computing device); providing, during the connection, a hardware profile of a network device (see paragraph 0048); receiving configuration information (see figure 5 ref s502 and s503) from the remote device (see paragraphs 42-48) based on the hardware profile (see paragraphs 42-48). In regards to hardware profile, Rao further teaches the configuration announcement message from the wireless network client 2 is a device discovery announcement in according with a device discovery protocol, and preferably includes a state variable indicating that wireless network client 2 is a new device on local-network 5 and including an address (i.e. address of a hardware is a hardware profile i.e. the address of the device is part of it's hardware profile) of wireless

network client 2. Further more, device discovery protocol inherently carries MAC address of the device in messages, thus MAC address being a hardware profile satisfies the cited limitation. As such, inherently, when using device discovery protocol, messages contain MAC address of the devices communicating with each other.

Rao implicitly teaches hardware profile in device discovery announcement but does not explicitly teach hardware profile in device discovery announcement.

Aboba in the same or similar field of endeavor teaches hardware profile in device discovery announcement (paragraph 0004, the announcements and discovery responses identify the type of device (i.e. hardware profile) and its capabilities (also interpreted as hardware profile), as well as its presence on the network).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao's system/method, the steps of hardware profile in device discovery announcement as suggested by Aboba, The motivation is that such method enables proper identification of new devices in terms of it's type and capabilities to establish seamless communication to build a reliable network. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claim 54, Rao teaches the establishing step is performed in response to the receipt of a configuration message transmitted by the remote device (see Rao figure 5 ref s510 acceptable access point determined).

Regarding claim 55, Rao teaches the configuration message is addressed to the broadcast address of the network (see Rao paragraph 46).

Regarding claim 57, Rao teaches a second network device connected to the network is operative to broadcast the network address of the remote device (see Rao paragraph 45-48).

Regarding claim 58, Rao teaches the network comprises a second network (see paragraph 46 and it is inherent for the networking system to include second/plurality of client devices) device operative to transmit the network address of the remote device in response to a request (see paragraph 46); and wherein the method further comprises broadcasting a request for the network address of the remote device (see paragraph 47).

4. Claims 1, 2, 4, 5, 7, 24, 25, 28, 34, 35, 36 and 38 (as best understood and interpreted by the Examiner) are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao (US20040264395) in view of Philippou et al. (US PAT 6385648, hereinafter Philippou) and Hershey et al. (US PAT 5481539, hereinafter Hershey).

Regarding claim 1, Rao discloses configuration of wireless network client (see paragraph 9 and 10) comprising: monitoring, at a network device operating in an unconfigured mode (see paragraph 32 unconfigured wireless device), for a configuration message (see paragraph 33 predetermined message), wherein the configuration message includes information sufficient for an initial automated remote deployment of the network device (see paragraph 37 automatic configuration of the

wireless network client), including an IP address for a remote network management system (paragraph 0046), and switching the network device to a configured mode (paragraph 0053, Wireless network client 2 initializes the configuration process in order for wireless network client 2 to eventually detect the predetermined broadcast message from configured computing device 1 and configure itself automatically).

Rao does not explicitly teach a network device operating in an unconfigured network address mode and including an internet protocol (IP) address for the network device, wherein the network device is disposed on a communications path between a first network and a second network and wherein configuration message is transmitted from a remote device on the first network and addressed to a destination host on the second network; upon detection of the configuration message, configuring the network device with the IP address for the network device information in the configuration message; and switching the network device to a configured mode.

Philippou in the same field of endeavor teaches a network device (figure 2, box 205) operating in an unconfigured network address mode (column 3 liens 6-17, in one embodiment, box 205 is a network switch. In the embodiment illustrated in FIG. 2, box 205 is recognized in network 211 using network identifier 221. In an embodiment where TCP/IP communications protocols are used for communications within network 211, network identifier 221 includes an IP address. As also depicted in the embodiment illustrated in FIG. 2, box 205 also includes a subnet mask 223 and a default gateway 225, which are utilized for network communications. In addition to network identifier 221, box 225 also includes a unique identifier 227. In one embodiment, unique identifier

227 includes a serial number of box 205) and including an internet protocol (IP) address for the network device (column 5, lines 53-56, therefore, it will be known to box 205 that when the initialization message is received, the network identifier 221, subnet mask 223 and default gateway 225 included in the initialization message are intended for box 205), wherein the network device is disposed on a communications path (Figure 2, path between network 211 and network 215) between a first network (Figure 2, network 211) and a second network (Figure 2, network 215) and wherein configuration message is transmitted from a remote device (figure 2, configuration utility) on the first network (Figure 2, network 211) and addressed to a destination host (figure 2, here destination host being interpreted as the box 205, having message addressed with elements 221, 223, 225 and 227) on the second network (Figure 2, network 215); upon detection of the configuration message, configuring the network device with the IP address for the network device information in the configuration message; and switching the network device to a configured mode (column 5 lnes 56-65, in one embodiment, after box 205 receives the initialization message broadcast from configuration utility 231, box 205 updates its values for network identifier 221, subnet mask 223 and default gateway 225. Once these values of box 205 have been updated, one embodiment of box 205 sends a second acknowledgement directed to configuration utility 231 over network 211 to indicate that its network identifier 221, subnet mask 223 and default gateway 225 settings have been initialized).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao's system/method the steps of a network device

operating in an unconfigured network address mode and including an internet protocol (IP) address for the network device, wherein the network device is disposed on a communications path between a first network and a second network and wherein configuration message is transmitted from a remote device on the first network and addressed to a destination host on the second network; upon detection of the configuration message, configuring the network device with the IP address for the network device information in the configuration message; and switching the network device to a configured mode as suggested by Philippou. The motivation is that (as suggested by Philippou, columns 1-2 lines 54-17) such method streamlines addition of new devices in network by avoiding situations where more than one box is added to the network, the network administrator must separately initialize the network identifier of each box; thus implementing an efficient remote network management and configuration process. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Rao and Philippou teach in the unconfigured network address mode receiving configuration messages as described above but do not explicitly teach forwarding, all packets received at the network device, other than packets intended for itself, along the communications path.

Hershey in the same field of endeavor teaches the recipient mobile units compare their internal ID with the `DESTINATION ID` in the message packet. If they

match the message packet has been successfully transmitted to its intended mobile unit. If the IDs do not match, then valid message packets are then broadcast to nearby mobile units at a time which would not overlap the time slot allocated to this mobile unit (column 1 lines 41-48)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao and Philippou's system/method the steps of forwarding, all packets received at the network device, other than packets intended for itself, along the communications path as suggested by Hershey. The motivation is that (as suggested by Hershey, column 2 lines 32-36) the message transmissions are executed without any intervention or control from a central station, thereby resulting in direct and efficient message transmission with little or no extra overhead and resources. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claim 2, Rao teaches transmitting a message to the remote network management system (see paragraph 42, configuration announcement message).

Regarding claim 4, Rao teaches the transmitting step comprises initiating a connection to the remote network management system (see paragraphs 45-50).

Regarding claim 5, Rao teaches further comprising receiving additional configuration from the remote device (see paragraphs 46 and 47).

Regarding claim 7, Rao teaches further comprising validating the configuration message before the configuring step (see figure 5 ref s510 acceptable access point determined).

Regarding claim 24, Rao teaches a method facilitating remote deployment of network devices (see paragraphs 9-10), comprising monitoring, at a network device in an unconfigured mode, for a configuration message transmitted by a network management system (see paragraph 32 unconfigured wireless device), wherein the configuration message (see paragraph 33 predetermined message) includes configuration information for the network device (see paragraph 37 automatic configuration of the wireless network client); after detection of a configuration message, validating the configuration message (see figure 5 ref s510 acceptable access point determined); if the configuration message is valid, configuring the network device using the (~onfiguration information in the configuration message (see figure 5 ref s511 configure wireless network client and paragraph 33).

Rao does not explicitly teach the network device is disposed on a communications path between a first network and a second network.

Philippou in the same field of endeavor teaches the network device is disposed on a communications path (Figure 2, path between network 211 and network 215) between a first network (Figure 2, network 211) and a second network (Figure 2, network 215); and wherein configuration message is transmitted from a remote device (figure 2, configuration utility) on the first network (Figure 2, network 211) and addressed to a destination host (figure 2, here destination host being interpreted as the

box 205, having message addressed with elements 221, 223, 225 and 227) on the second network (Figure 2, network 215).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao's system/method the steps of the network device being disposed on a communications path between a first network and a second network as suggested by Philippou. The motivation is that such method enables a system situated between two networks to relay messages between the networks enabling successful inter-network communication. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Rao and Philippou teach receiving configuration messages but do not explicitly teach if a message is not valid, forwarding the message along the communications path; and forwarding all messages other than messages intended for itself received at the network device along the communications path.

Hershey in the same field of endeavor teaches the recipient mobile units compare their internal ID with the `DESTINATION ID` in the message packet. If they match the message packet has been successfully transmitted to its intended mobile unit. If the IDs do not match, then valid message packets are then broadcast to nearby mobile units at a time which would not overlap the time slot allocated to this mobile unit (column 1 lines 41-48)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao and Philippou's system/method the steps of if a message is not valid, forwarding the message along the communications path; and forwarding all messages other than messages intended for itself received at the network device along the communications path as suggested by Hershey. The motivation is that (as suggested by Hershey, column 2 lines 32-36) the message transmissions are executed without any intervention or control from a central station, thereby resulting in direct and efficient message transmission with little or no extra overhead and resources. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claim 25, Rao teaches the configuration message includes information sufficient for the network device to establish a network connection to network management device (see paragraph 37 automatic configuration of the wireless network client and paragraph 48).

Regarding claim 28, Rao teaches the configuration information comprises network address corresponding to the network management system (see paragraph 45 configured computing device).

Rao does not explicitly teach the configuration information comprises a network address for the network device.

Philippou in the same field of endeavor teaches configuration information including an internet protocol (IP) address for the network device (column 5, lines 53-56,

therefore, it will be known to box 205 that when the initialization message is received, the network identifier 221, subnet mask 223 and default gateway 225 included in the initialization message are intended for box 205).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao's system/method the steps of the configuration information comprising a network address for the network device as suggested by Philippou. The motivation is that (as suggested by Philippou, columns 1-2 lines 54-17) such method streamlines the addition of new devices in network by avoiding situations where more than one box is added to the network, the network administrator must separately initialize the network identifier of each box; thus implementing an efficient remote network management and configuration process. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claim 34, Rao teaches method facilitating remote deployment of network devices, comprising: receiving at a network device in an unconfigured state (see paragraph 32 unconfigured wireless device), a configuration message (see paragraph 33 predetermined message) transmitted by a network management system (see paragraph 33 configured computing device), wherein the configuration message includes configuration information for the network device (see paragraph 33 predetermined message and paragraph 48); after detection of a configuration message, validating the configuration message (see figure 5 ref s511) acceptable access point

determined); if the configuration message is valid, configuring the network device using the configuration information in the configuration message (see figure 5 ref s511 configure wireless network client and paragraph 48).

Rao does not explicitly teach a first network interface of a network device and the first network interface and a second network interface of the network device are operably connected to a communications path between a first network and a second network.

Philippou in the same field of endeavor teaches a first network interface (Figure 2, associated interface connecting network 211 to box 205) of a network device (Figure 2, box 205) and the first network interface (Figure 2, associated interface connecting network 211 to box 205) and a second network interface (Figure 2, associated interface connecting network 215 to box 205)of the network device are operably connected to a communications path between a first network and a second network (Figure 2, path between network 211 and network 215).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao's system/method the steps of a first network interface of a network device and the first network interface and a second network interface of the network device are operably connected to a communications path between a first network and a second network as suggested by Philippou. The motivation is that such method enables a system situated between two networks to relay messages between the networks enabling successful inter-network communication. Known work in one field of endeavor may prompt variations of it for use

in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Rao and Philippou teach receiving configuration messages but do not explicitly teach if a message is not valid, forwarding the message along the communications path; and forwarding all messages other than messages intended for itself received at the network device along the communications path; passing packets other than messages intended for itself received at the first network interface to the second network interface for forwarding along the communications path.

Hershey in the same field of endeavor teaches the recipient mobile units compare their internal ID with the `DESTINATION ID` in the message packet. If they match the message packet has been successfully transmitted to its intended mobile unit. If the IDs do not match, then valid message packets are then broadcast to nearby mobile units at a time which would not overlap the time slot allocated to this mobile unit (column 2 lines 20-30). In regards to first network interface and second network interface are satisfied by receivers and transmitters respectively (column 3 lines 55-57).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao and Philippou's system/method the steps of if a message is not valid, forwarding the message along the communications path; and forwarding all messages other than messages intended for itself received at the network device along the communications path; passing packets other than messages intended for itself received at the first network interface to the second network interface for

forwarding along the communications path as suggested by Hershey. The motivation is that (as suggested by Hershey, column 2 lines 32-36) the message transmissions are executed without any intervention or control from a central station, thereby resulting in direct and efficient message transmission with little or no extra overhead and resources. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claim 35, Rao teaches the configuration information includes the network address (see paragraph 45) of a network management system (see paragraph 33 configured computing device) and wherein the method further comprises establishing a connection to the network management system using the network address in the configuration information (see paragraph 45-50).

Regarding claim 36, Rao teaches network device allowing for automated, remote deployment (see paragraphs 9-11), comprising: operative to transmit and receive packets over a computer network (see paragraphs 47-48, and figure 5 shows that it communicates with wireless client device); a configuration interface module operative to configure the network device based on received configuration information (see paragraphs 37-38); and a configuration daemon (paragraph 0039, client configuration module 412) operative, when the network device is an Unconfigured state (see paragraph 32 unconfigured wireless device), receive a configuration message transmitted by a network management system (see paragraph 33 predetermined message); validate the configuration message (see figure 5 ref S510 acceptable access

point determined); and invoke the configuration interface module if the configuration message is valid configuration message (paragraph 0039, see figure 5 ref 511 configure wireless network client). Rao further teaches receiving configuration message at network interface (paragraph 0038), a processor (Figure 4, CPU 401), and computer readable instructions used by processor (paragraphs 0038-0039).

Rao does not explicitly teach a first and second network interfaces.

Philippou in the same field of endeavor teaches a first network interface (Figure 2, associated interface connecting network 211 to box 205) of a network device (Figure 2, box 205) and the first network interface (Figure 2, associated interface connecting network 211 to box 205) and a second network interface (Figure 2, associated interface connecting network 215 to box 205)of the network device are operably connected to a communications path between a first network and a second network (Figure 2, path between network 211 and network 215).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao's system/method the steps of a first network interface of a network device and the first network interface and a second network interface of the network device are operably connected to a communications path between a first network and a second network as suggested by Philippou. The motivation is that such method enables a system situated between two networks to relay messages between the networks enabling successful inter-network communication. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market

forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Rao and Philippou teach receiving configuration messages but do not explicitly teach passing, if a message is not valid, the message for forwarding along a communications path; and pass packets other than valid messages received for forwarding along the communications path.

Hershey in the same field of endeavor teaches the recipient mobile units compare their internal ID with the `DESTINATION ID` in the message packet. If they match the message packet has been successfully transmitted to its intended mobile unit. If the IDs do not match, then valid message packets are then broadcast to nearby mobile units at a time which would not overlap the time slot allocated to this mobile unit (column 1 lines 41-48)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao and Philippou's system/method the steps of receiving configuration messages but do not explicitly teach passing, if a message is not valid, the message for forwarding along a communications path; and pass packets other than valid messages received for forwarding along the communications path as suggested by Hershey. The motivation is that (as suggested by Hershey, column 2 lines 32-36) the message transmissions are executed without any intervention or control from a central station, thereby resulting in direct and efficient message transmission with little or no extra overhead and resources. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design

incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claim 38, Rao teaches the configuration interface module is operative to configure the network device (see paragraphs 37-38) to communicate with a remote network management system using information in the configuration message (see paragraph 33 predetermined message).

5. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao (US20040264395) in view of Philippou et al. (US PAT 6385648, hereinafter Philippou).

Regarding claim 9, Rao disclose a method facilitating remote deployment and configuration of a network device physically installed on a first network, wherein the network device is initially unconfigured (see paragraph 32 unconfiugrd wireless device) and operative to intercept configuration messages (see paragraph 33 predetermined messge), comprising: composing a configuration message including configuration information corresponding to a network device (see paragraph 33 predetermined messge); and the configuration information comprises an IP address for a remote network management system (paragraph 0046) and disclose all the subject matter of the claimed invention with the exception of: transmitting from a second network a configuration message to a destination host in the first network, wherein the network device is disposed on the communications path between the second network and the destination host and wherein the configuration information comprises an internet protocol (IP) address for the network device.

Philippou in the same field of endeavor teaches a network device (figure 2, box 205) operating in an unconfigured network address mode (column 3 liens 6-17, in one embodiment, box 205 is a network switch. In the embodiment illustrated in FIG. 2, box 205 is recognized in network 211 using network identifier 221. In an embodiment where TCP/IP communications protocols are used for communications within network 211, network identifier 221 includes an IP address. As also depicted in the embodiment illustrated in FIG. 2, box 205 also includes a subnet mask 223 and a default gateway 225, which are utilized for network communications. In addition to network identifier 221, box 225 also includes a unique identifier 227. In one embodiment, unique identifier 227 includes a serial number of box 205) and including an internet protocol (IP) address for the network device (column 5, lines 53-56, therefore, it will be known to box 205 that when the initialization message is received, the network identifier 221, subnet mask 223 and default gateway 225 included in the initialization message are intended for box 205), wherein the network device is disposed on a communications path (Figure 2, path between network 211 and network 215) between a first network (Figure 2, network 211) and a second network (Figure 2, network 215) and wherein configuration message is transmitted from a remote device (figure 2, configuration utility) on the first network (Figure 2, network 211) and addressed to a destination host (figure 2, here destination host being interpreted as the box 205, having message addressed with elements 221, 223, 225 and 227) on the second network (Figure 2, network 215); upon detection of the configuration message, configuring the network device with the IP address for the network device information in the configuration message; and switching the network

device to a configured mode (column 5 lnes 56-65, in one embodiment, after box 205 receives the initialization message broadcast from configuration utility 231, box 205 updates its values for network identifier 221, subnet mask 223 and default gateway 225. Once these values of box 205 have been updated, one embodiment of box 205 sends a second acknowledgement directed to configuration utility 231 over network 211 to indicate that its network identifier 221, subnet mask 223 and default gateway 225 settings have been initialized).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate in Rao's system/method the steps of transmitting from a second network a configuration message to a destination host in the first network, wherein the network device is disposed on the communications path between the second network and the destination host and wherein the configuration information comprises an internet protocol (IP) address for the network device as suggested by Philippou. The motivation is that (as suggested by Philippou, columns 1-2 lines 54-17) such method streamlines addition of new devices in network by avoiding situations where more than one box is added to the network, the network administrator must separately initialize the network identifier of each box; thus implementing an efficient remote network management and configuration process. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claim 10, Rao teaches further comprising repeating the configuration message until a response to the configuration message is received from the network device (see paragraph 33 repeatedly broadcasts a predetermined message).

Regarding claim 11, Rao teaches the configuration information comprises information sufficient for the network device to establish a network connection with the network management system (see paragraph 37 automatic configuration of the wireless network client and paragraph 48).

Regarding claim 12, Rao teaches the configuration message (see paragraphs 45-46 broadcast message), a sub- network mask for the first network (see paragraphs 45-46 subnet), and the network address of the gateway router corresponding to the first network (see paragraphs 45-46 respective IP address).

Aboba

7. Claims 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao and Aboba as applied ot claims 48 above and further in view of Nomura et al., hereinafter Nomura, (US6930984).

Regarding claims 51-53, Rao teaches the • (claim 51)wherein the configuration information received from the remote device (see paragraph 33 predetermined message) • (claim 53) the subnetworks accessible to the network device (see paragraph 45), and

discloses all the subject matter of the claimed invention with the exception of: (claim 51) gathering network topology information characterizing the topology of

the network to which the network device is attached; and (claim 51) providing the network topology information to the remote device; and is based on the hardware profile and the network topology information (see column 15 line 10-25). (claim 52) the network topology information comprises information concerning at least one host neighboring the network device (see column 15 line 15). (claim 53) the network topology information comprises

Nomura from the same or similar fields of endeavor teaches the use of topology information (see Normura col. 15 lines 10-25), adjacent router (see Normura col. 15 line 13-15 corresponds to neighboring the network device).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the topology information and adjacency of router as taught by Normura in the configuration of wireless network list of Rao and Aboba in order to increase processing capability of each network device (see Normura et al. column 3 line 3). Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

7. Claims 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao, Philippou and Hershey as applied ot claims 24 above and further in view of Nomura et al., hereinafter Nomura, (US6930984).

Regarding claim 30, Rao, Philippou and Hershey disclose all the subject matter of the claimed invention with the exception of: teaches network device is operably

connected to a first network comprising a gateway router having a gateway network address; wherein the Configuration information in the configuration message comprises the network address of a gateway router; and wherein the validating step comprises determining whether the network address of the gateway router matches the gateway network address of the gateway router

Nomura from the same or similar fields of endeavor teaches the use of comparing the information (see Nomura col. 19 lines 35-40 and col. 19 lines 61-co1. 20 line 4).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the communication path through networks and communication traffic between client and server as taught by Nomura in the configuration of wireless network client of Rao in order to provide a service for communicating traffic between the client and server at a priority higher than that of other traffic (see Nomura col. 20 lines 18-20). Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claim 32, Rao teaches the monitoring step comprises intercepting, at a first network interface, a configuration message (see paragraph 33 predetermined message)transmitted by a network management system (see paragraph 33 configured computing device); And disclose all the subject matter of the claimed invention with the

exception of: passing other packets to a second network interface for forwarding along the communications path.

Nomura from the same or similar fields of endeavor teaches the use of networks 131, to 133 and communication path (see figure 2 ref 13 network and col. 13 lines 1-13) and communication path from the client to server will eventually be Completed and will be possible to provide a service for communicating traffic between client and server (see Nomura col. 16 lines 16-20). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the communication path through networks and communication traffic between client and server as taught by Nomura in the configuration of wireless network client of Rao in order to provide efficiency to traffic communication through networks. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

7. Claims 41-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao further in view of Nomura et al., hereinafter Nomura, (US6930984).

Regarding claim 41, Rao teaches in a network environment (see paragraph 9 and 10), the method comprising identifying a destination host on the first network (see paragraph 33), wherein an unconfigured network device (see paragraph 32 unconfigured wireless device) is disposed on the communications path between the gateway router and the network device (see paragraph 45), wherein the network device

is operative (see paragraph 37 automatic configuration of the wireless network client), in an unconfigured mode, to intercept configuration messages (see paragraph 33 predetermined message); transmitting a configuration message to the first network, wherein the configuration message is addressed to the destination host (see paragraph 33).

And disclose all the subject matter of the claimed invention with the exception of: comprising a first network and a second network, wherein the first network includes a gateway router allowing access to resources on at least the second network, a method facilitating remote configuration of a network device physically .installed on the first network.

Nomura from the same or similar fields of endeavor teaches the use of networks 131, to 133 and communication path (see figure 2 ref 13 network and col. 13 lines 1-13) and communication path from the client to server will eventually be completed and will be possible to provide a service for communicating traffic between client and server (see Nomura col. 16 lines 16-20).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the communication loaih through neiworks and communication traffic between client and server as taught by Nomura in the configuration of wireless network client of Rao in order to provide efficiency to traffic communication through networks. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market

forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claims 42-45, Rao discloses all the subject matter of the claimed invention with the exception of; (claim 42) the configuration message is formatted in a manner that causes the destination host to ignore the configuration message. (claim 43) the configuration message is formatted in a manner that causes the destination host to discard the configuration message. (claim 44) the configuration message is formatted according to a protocol that is not implemented by the destination host. (claim 45) the configuration message is formatted according to a protocol that is not understood by the destination host.

The background of Normura et al. from the same or similar fields of endeavor teaches the use of network device that does not support RSVP exists in the network, this device cannot undergo any control of quality (see Normura et al. background column 2 line 58-67).

Thus, it would have been obvious to oneof ordinary skill in the art at the time of the invention to use the a RSVP exists in the network, this device cannot undergo any control of quality in the configuration of wireless network list of Rao in order to increase processing capability of each network device (see Normura et al. column 3 line 3).

Regarding claim 46, Rao teaches the configuration message includes information sufficient for the network device to establish a rletwork connection with a remote device (see Rao paragraph 48).

Regarding claim 47, Rao teaches the configuration information (see paragraph 45 broadcast message) including a network address for the network device, a sub-network mask for the first network (see paragraph 45 subnet), a network address for the remote device (see paragraph 45 configured computing device), and the network address of the gatewaY, router corresponding to the first network (see paragraph 45 respective IP address).

6. Claims 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao, Philippou and Nomura as applied to claim 9 above, and further in view of Ylonen et al., hereinafter Ylonen, (US2002/0191548).

Regarding claims 13-23, Rao, Philippou and Nomura disclose all the subject matter of the claimed invention with the exception of configuration information includes: (claim 13) the configuration information further includes a cryptographic digest of the configuration information. (claim 14) the configuration information is encrypted with an encryption key. (claim .15) the encryption key comprises a secret string of text. (claim 16) the encryption key further comprises a random number. (claim 17 the encryption key further comprises the network address of the destination host. (claim 18) the network device is pre-configured with the secret string of text. (claim 19) the encryption key is a symmetric encryption key. (claim 20) the encryption key is a private encryption key and wherein the configuration information is encrypted using an asymmetric encryption algorithm. (claim 21) the network device is preconfigured with an encryption key corresponding to the private encryption key. (claim 22) the symmetric encryption

key is encrypted using an asymmetric o. encryption algorithm with a private encryption key. (claim 23) the network device is preconfigured with an encryption key corresponding to the private encryption key.

Ylonen et al. from the same or similar fields of endeavor teaches the use of encryption and decryption of configuration information (see Ylonen et al. paragraph 50, 52, 63, and 217) and public and private key (see Yl0nen et al. paragraph 52 and 63) and key material stored in the secure storage deice (see Ylonen et al. paragraph 88).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the encryption algorithm as taught by Ylonen et al. in the teaching of Rao, Philippou and Nomura in order to provide cryptographic authentication and confidentiality of traffic between two communicating network nodes (see Ylonen et al. paragraph 7). Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

7. Claims 29 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao, Philippou, Hershey and Nomura as applied to claim 24 above, and further in view of Ylonen et al., hereinafter Ylonen, (US2002/0191548).

Regarding claims 29 and 33, Rao, Philippou, Hershey and Nomura disclose all the subject matter of the claimed invention with the exception of configuration information includes: (claim 29) the configuration message is encrypted. (claim 33) the

configuration message is encrypted and wherein the validating step comprises decrypting the configuration information. Ylonen et al. from the same or similar fields of endeavor teaches the use of encryption and decryption of configuration information (see Ylonen et al. paragraph 50, 52, 63, and 217).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the encryption algorithm as taught by Ylonen et al. in the in the teaching of Rao, Philippou, Hershey and Nomura in order to provide cryptographic authentication and confidentiality of traffic between two communicating network nodes (see Ylonen et al. paragraph 7). Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

8. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rao, Philippou, Hershey and Nomura as applied to claim 24 above, and further in view of Traversat et al. (US2007/0097885).

Regarding claim 31, Rao et al disclose all the subject matter of the claimed invention with the exception of determining step comprises broadcast an address resolution protocol request, including the network address in the configuration message, on the network.

Traversat et al. from the same or similar fields of endeavor teaches the use of broadcast a query message requesting information (see Traversat et al. paragraph 27)

and ARP requests are sent for any single target IP address (see Traversat et al. paragraph 309).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use ARP requesting message in the configuration of, wireless network client of Rao in order to provide enhance system efficiency. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

9. Claims 50 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao and Aboba in view of Ylonen et al., hereinafter Ylonen, (US2002/0191548).

Regarding claims 50, and 56, Rao discloses all the subject matter of the claimed invention with the exception of DHCP server operative to provide the network address of the remote device in afield associated with a DHCP response transmitted to the network device.

Ylonen et al. from the same or similar fields of endeavor teaches the use of DHCP configure devices (see Ylonen et al. paragraph 28, 56, 59 and 75).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use DHCP configure devices as taught by Ylonen et al. in the in the network-device control system an apparatus of Rao and Aboba in order to obtain devices configuration information (see Ylonen et al. paragraph 27). Known work in one field of endeavor may prompt variations of it for use in either the same field or a different

one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Response to Arguments

10. Applicant's arguments see pages 12-16 of the Remarks section, filed 11/19/2008, with respect to the rejections of the claims have been fully considered.

In regards to claim 48, a new ground of rejection is presented in this office action. As such any further response to Applicant's argument is moot.

In regards to claims 1 and 24, Applicant argues that (see page 13) Philippou, either individually or in combination, do no disclose: (1) the limitation that "the configuration message is transmitted from a remote device on the first network and addressed to a destination host on the second network" as recited in claims 1 and 24.

However, Examiner respectfully disagrees with the Applicant's assertion. Philippou does indeed teach the cited limitations. Specifically, Philippou teaches configuration message is transmitted from a remote device (figure 2, configuration utility) on the first network (Figure 2, network 211) and addressed to a destination host (figure 2, here destination host being interpreted as the box 205, having message addressed with elements 221, 223, 225 and 227) on the second network (Figure 2, network 215).

Applicant argues that (see page 13) configuration message is transmitted directly from a device on one network to a destination host on another, different network; Unlike the above cited references and specifically Philippou, the present application enables remote configuration of a device across different networks, that is, from one network,

remotely configuring a device connected to another, different network. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "transmitted directly", "across different networks", "another, different network" etc.) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that (see page 13) with the present application, the network device and the destination host are two distinct and different devices. However, Examiner respectfully disagrees with the Applicant's assertion. As best understood by the Examiner, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "the network device and the destination host are two distinct and different devices", paragraphs 0016-0017 of the current application etc.) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that (see page 14) Philippou distinguishes from the present application in at least two aspects. First, the initialization message is broadcast over the network instead of being sent to a particular destination host; Second, the initialization message is broadcast over the same network the configuration utility 231 is on (i.e., network 211) instead of being transmitted to a different network the configuration utility

is not on (i.e., from afirst network the remote device is on to a second network the destination host is on); Consequently, Philippou does not disclose the above limitation recited in independent claims 1, 9, and 24.

1. In response, Examiner respectfully submits that Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

2. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Applicant argues that (see page 14) with respect to independent claims 34 and 36, the above references and specifically Rao, Philippou, and Hershey, either individually or in combination, do no disclose the limitation that invalid configuration messages and packets other than configuration messages received at the first network interface is passed to the second network interface for forwarding along the communications path.

However, Examiner respectfully disagrees with the Applicant's assertion. The cited references do indeed teach the cited limitations. Specifically, Hershey in the same field of endeavor teaches the recipient mobile units compare their internal ID with the `DESTINATION ID` in the message packet. If they match the message packet has been successfully transmitted to its intended mobile unit. If the IDs do not match, then

valid message packets are then broadcast to nearby mobile units at a time which would not overlap the time slot allocated to this mobile unit (column 2 lines 20-30). In regards to first network interface and second network interface are satisfied by receivers and transmitters respectively (column 3 lines 55-57).

Applicant argues that (see page 14) with Hershey, the device involved is a cellular telephone mobile unit (see col. 2, line 2), which is a wireless device. Unlike Philippou's box 205 and the network device of the present application, Hershey' s mobile unit does not contain the type of network interfaces that connect the mobile unit to various networks. However, In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim 41 stand rejected for the same reasons as stated above for claims 1, 9 and 24.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SALMAN AHMED whose telephone number is (571)272-8307. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Salman Ahmed/

Examiner, Art Unit 2419